

REMARKS

Applicants respectfully request that the above-identified application be reexamined.

Claims 1-13, 15, 16, 18-30, 38, and 39 are pending in this application. Claims 11-13, 15, 16, 18-20, 38, and 39 have been withdrawn from consideration. The Office Action mailed August 22, 2007 (hereinafter "Office Action"), rejected Claims 1, 5-9, 21, and 25-29 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,751,794, issued to McCaleb et al. (hereinafter "McCaleb et al.") and U.S. Patent No. 7,127,641, issued to Anderson (hereinafter "Anderson"). Claims 2-4 and 22-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCaleb et al. and Anderson and further in view of U.S. Patent Application Publication No. 2003/0090531, to Wong et al. (hereinafter "Wong et al."). Claims 10 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCaleb et al. and Anderson and further in view of U.S. Patent Application Publication No. 2004/0031030, to Kidder et al. (hereinafter "Kidder et al.").

Pursuant to 37 C.F.R. § 1.111 and for the reasons set forth below, applicants respectfully request reconsideration and allowance of the pending claims. Prior to discussing in detail why applicants believe that all the claims in this application are allowable, a brief description of the disclosed subject matter and brief descriptions of the teachings of the cited and applied references are provided. The following discussions of the disclosed subject matter and the cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these discussions are provided solely to assist the United States Patent and Trademark Office in recognizing the differences between the pending claims and the cited references, and should not be construed as limiting on the disclosed subject matter.

Disclosed Subject Matter

A method for collecting information about the programs installed on a computer and the services provided by the computer and storing the information in log files is disclosed. In one exemplary implementation, the log file storage method collects three types of information. The

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first type is system information including, but not limited to, information about the computer operating system, hardware, and processor. The second type is information about the executables, i.e., executable programs used by the operating system, including, but not limited to, information about executables included in a defined set of folders stored on the computer and executables associated with services provided by the computer. The executables information includes attributes determined by the executables. The third type is application information about the application programs installed on the computer including linked executables. The application program information includes attributes determined by the application programs including the linked executables. The collected information is stored in a log file in a standard language. Further, a signature for each executable is also stored in the log file in a standard language. A signature for an executable is derived from a subset of the attributes associated with the executable.

In another exemplary implementation, the log file storage method of collecting and storing information about the applications installed on, and the services provided by, a computer for subsequent retrieval comprises enumerating executables associated with each application installed on, and each service provided by, the computer that has an associated executable. For each executable, information about the executable is extracted. The information includes a plurality of attributes regarding the executable. The extracted information is stored in a log file. A signature for a combined set of attributes that include attributes from each of the executables is derived and stored in a log file.

The log files may be used to produce reports describing the applications, services, system information, and/or application compatibility information for the computing device. The signature allows log files containing certain attribute values, e.g., an application and its version to be more quickly identified.

Summary of McCaleb et al. (U.S. Patent No. 6,751,794)

McCaleb et al. purportedly discloses a method for remotely updating software for a plurality of client systems. A client system sends a request for an upgrade to a server system. The request includes a unique identification that is recognized by the server system as belonging to the client system. In response, the server system sends an instruction to the client system that directs the client system to collect application information about the software application installed on the client system. The client system sends the application information to the server system. The server system performs a comparison between the application information about the software application and the most updated upgrade package for the software application. The server system sends the most updated upgrade package for the software application to the client system.

Summary of Anderson (U.S. Patent No. 7,127,641)

Anderson is directed to a system and method for using Extensible Markup Language (XML) as a scripting language for testing of software programs. (Anderson, Abstract.) Extensible Stylesheet Language (XSL) is used to define a new markup language for developing scripts that can be used by a test control processor to test other software programs. The test control processor may include an XML processor for processing the script. The test control processor submits instructions to software programs under test and extracts the behavior of the software program. (Anderson, Col. 1, line 65-Col. 2, line 11.)

Summary of Wong et al. (U.S. Published Application No. 2003/0090531)

Wong et al. purportedly discloses a digital preservation system for accepting a digital data record as input. The digital data record is written in human-readable form onto a preservation quality medium. The digital preservation system preserves the data record in a human-readable form, along with an associated metadata record. Preserving the data record in a human-readable form allows the preserved data record to be readable independent of specific reading hardware. Hence, the preserved data record may be readable in the distant future.

Summary of Kidder et al. (U.S. Published Application No. 2004/0031030)

Kidder et al. purportedly discloses a method and apparatus for facilitating hot upgrades of software components within a telecommunications network device through the use of signatures generated by a signature-generating program. After installation of a new software release within the network device, only those software components whose signatures do not match the signatures of corresponding and currently executing software components are upgraded. The signatures provide a way to accurately determine the upgrade status of each software component.

Rejection of Claims 1, 5-9, 21, and 25-29 under 35 U.S.C. § 103(a)

As indicated above, Claims 1, 5-9, 21, and 25-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCaleb et al. and Anderson. Applicants respectfully disagree for the reasons set forth below.

Claim 1 recites, in its entirety:

1. A computer-implemented method of collecting and storing information about the programs installed on and the services provided by a computer for subsequent retrieval, comprising:

(a) extracting from the computer information including, but not limited to, information about the computer operating system, hardware, and processor and storing the system information in a log file in a standardized language;

(b) extracting from the computer executables information including, but not limited to, information about **executables included in a defined set of folders** stored on the computer and **executables associated with services** provided by the computer and storing the executables information in the log file, the executables information including attributes determined by the executables, **the attributes including at least one attribute other than a version number**, in a standardized language;

(c) extracting from the computer information regarding the application programs installed on the computer including linked executables and storing the application program information in the log file in a standardized language, the application program information including attributes determined by the application programs including the linked executables; and

(d) **deriving a signature for each of the executables based on a subset of the attributes** associated with the executable and

storing the resultant signatures in the log file in a standardized language.
(Emphasis added.)

McCaleb et al. does not teach, disclose, or even suggest extracting from the computer executables information about executables included in a defined set of folders, as recited in amended Claim 1. McCaleb et al. discloses a client's database 125 to keep track of the client systems 110 and 115. McCaleb et al. further discloses that whenever a client system 110 or 115 communicates with the server 105, the server 105 already knows about the installed software on that client system 110 and 115. (McCaleb et al., Col 3, lines 59-65.) (Emphasis added.) Systems 110 and 115, as described in McCaleb et al. in Figure 1 and the corresponding description, do not include information about installed software. McCaleb et al. explicitly discloses that the server 105 already knows about the installed software, clearly indicating that the information about the installed software is distinct from information about the client system included in the client database 125, and furthermore, such information is not extracted from the executables. *Arguendo*, even if for the purposes of argument, applicant accepts that client system information included in the client database 125 is the same as information about installed software, which applicants emphatically deny, McCaleb et al. does not disclose executables included in a defined set of folders, as recited in amended Claim 1. This is significant because collecting information from executables included in a defined set of folders focuses the information-gathering process on a small subset of potentially thousands of software components installed in a modern computer system.

McCaleb et al. does not teach, disclose, or even suggest executables associated with services provided by a computer, as recited in amended Claim 1. McCaleb et al. generically refers to software components as installed software packages or just installed software. McCaleb et al. does not disclose anything about the nature of the installed software or the relationship of the installed software with other components, as recited in amended Claim 1, for example, as "executables associated with services provided by the computer."

McCaleb et al. further does not teach, disclose, or even suggest that executables information include attributes determined by the executables, the attributes including at least one attribute other than a version number, as recited in amended Claim 1. Additionally, Claim 1 clearly distinguishes between executables and application programs. Those skilled in the art will appreciate that executables may include software components such as dynamic linked libraries (DLL), bin files, sys files, etc. Application programs are standalone, independent software components that perform particular tasks, whereas executables are software components usable by the application programs.

Finally, McCaleb et al. does not disclose deriving a signature based on a subset of the attributes associated with the executable, as recited in amended Claim 1. The Office Action states, on page 5, second full paragraph, "wherein the version number collected equates to an attribute of an application which equates to a signature of the application (executable)." (Emphasis added.) Applicants disagree. Firstly, the Office Action seems to equate an application with an executable. As discussed above, an application is distinct from an executable as recited in amended Claim 1. Additionally, the Office Action seems to explicitly equate a version number by itself with a derived signature. Those skilled in the art will appreciate that a digital signature is derived from other digital information in a computer by a mathematical process related to encryption to uniquely identify a software component. Generally, there is nothing unique about a version number. Arguendo, even if a version number was somehow unique, it still would not qualify as a signature derived from a subset of attributes, because it is not derived from any other entity to form a signature.

Since Anderson does not teach, disclose, or suggest the deficiencies of McCaleb et al. as discussed above, applicants submit that amended independent Claim 1 is allowable.

Since Claims 5-9 depend from Claim 1, they are submitted to be allowable for at least the reasons discussed above with respect to Claim 1.

Claim 21 recites similar features, in relevant portions, to amended Claim 1 and is submitted to be allowable for at least some of the reasons discussed above with respect to Claim 1. Claims 25-29 depend from Claim 21 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 21.

Rejection of Claims 2-4 and 22-24 Under 35 U.S.C. § 103(a)

As indicated above, Claims 2-4 and 22-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCaleb et al. and Anderson and further in view of Wong et al. Applicants respectfully disagree for the reasons set forth below.

Claims 2-4 and Claims 22-24 depend from amended Claims 1 and 21, respectively. Since Wong et al. does not teach, disclose, or suggest the deficiencies of McCaleb et al. discussed above, Claims 2-4 and 22-24 are submitted to be allowable for at least the same reasons discussed above with respect to amended Claims 1 and 21. More specifically, Wong et al. does not supply the teachings missing from McCaleb et al. and Anderson. Wong et al. is directed toward a digital preservation system for recording digital data in human-readable form.

Rejection of Claims 10 and 30 Under 35 U.S.C. § 103(a)

As indicated above, Claims 10 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McCaleb et al. and Anderson and further in view of Kidder et al. Applicants respectfully disagree for the reasons set forth below.

Claims 10 and 30 depend from amended Claims 1 and 21, respectively, and are submitted to be allowable for at least the reasons discussed above with respect to amended Claims 1 and 21 since Kidder et al. fails to teach, disclose, or even suggest the deficiencies of McCaleb et al. and Anderson. Kidder et al. discloses a machine-generated signature *based on the content of the software component*. (Kidder et al., ¶ [0458].) (Emphasis added.) Those skilled in the art will appreciate that signatures generated based on contents of a software component is not the same as a signature generated based on a subset of attributes associated with an executable, as recited in amended independent Claim 1. The resulting signature generated based on attributes of an

executable would be vastly different from a signature generated from the contents of a software component because, as noted above, a digital signature in a computer system is generated via a mathematical process from other digital information and if the other digital information are different, so will be the digital signatures derived therefrom. Therefore, Claims 10 and 30 are submitted to be allowable for these reasons.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that all of the remaining claims in this application are allowable. Consequently, early and favorable action allowing these claims and passing this application to issue is respectfully solicited. If the Examiner has any questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

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